

WHAT IS CLAIMED IS:

1. A universal ground clamp for structures with different cross-sectional shape, comprising:

an elongated strap defining at least a first hole and a second hole; and

a securing stud mechanism to extend through at least the first hole and the second hole to attach the elongated strap about the structure;

the securing stud mechanism including a stud having a curved surface to engage the elongated strap with smooth transition.

2. A universal ground clamp according to Claim 1, wherein the stud includes a head and a shank and the head includes the curved surface.

3. An electrical connector in accordance with Claim 2, wherein the elongated strap includes an abrasive surface for engaging an electrically conductive structure.

4. An electrical connector in accordance with Claim 3, wherein the abrasive surface includes at least one projection.

5. An electrical connector in accordance with Claim 4, wherein the at least one projection is formed by piercing the elongated strap with a pointed object.

6. An electrical connector in accordance with Claim 5, wherein the pointed object has an X-shaped point.

7. An electrical connector in accordance with Claim 5, wherein the pointed object has a pyramidal shaped point.

8. An electrical connector in accordance with Claim 5, wherein the at least one projection includes jagged and torn edges.

9. An electrical connector in accordance with Claim 3, wherein the stud is captured at the at least a first hole and capable of being received by the second hole after the elongated strap has been positioned about at least a portion of an electrically conductive structure.

10. An electrical connector in accordance with Claim 9, wherein the first hole includes at least one projection extending into the first hole and the stud is captured within the first hole by the at least one projection.

11. An electrical connector in accordance with Claim 10, wherein the at least one projection is integral to the elongated strap.

12. An electrical connector in accordance with Claim 11, wherein the at least one projection has a rectangular shape and extends from the perimeter of the first hole and into the first hole.

13. An electrical connector in accordance with Claim 10, wherein the at least one projection radially interferes with the stud and thereby captures the stud within the first hole.

14. An electrical connector in accordance with Claim 13 wherein the stud includes a head and a shank and the at least one projection radially interferes with the shank.

15. An electrical connector in accordance with Claim 14, wherein the shank includes a threaded portion and the at least one projection radially interferes with threads of the threaded portion.

16. An electrical connector in accordance with Claim 14, wherein the shank includes a threaded portion and a non-threaded portion located between the head and the threaded portion and the at least one projection radially interferes with the non-threaded portion.

17. An electrical connector in accordance with Claim 9, wherein the stud securing mechanism includes a sliding curved nut slidingly supported on the elongated strap.

18. An electrical connector in accordance with Claim 17, wherein the elongated strap includes at least one ends stop and the sliding curved nut is maintained on the elongated strap by the at least one stop.

19. An electrical connector in accordance with Claim 18, wherein the stud defines a hole coaxial with the longitudinal axis of the stud.

20. An electrical connector in accordance with Claim 19, wherein the head defines a bore extending transversely to the longitudinal axis of the stud for receiving a ground wire.

21. An electrical connector in accordance with Claim 20, wherein the bore extends completely through the head.

22. An electrical connector in accordance with Claim 21, wherein the hole extends into the bore.

23. An electrical connector in accordance with Claim 22, wherein the electrical connector includes a second stud and the hole receives the second stud.

24. An electrical connector in accordance with Claim 23, wherein the second stud may be rotatably shifted from a wire receiving position to a wire securing position.

25. An electrical connector in accordance with Claim 24, wherein the bore may receive a wire when the second stud is in its wire receiving position and a wire may be secured therein when the second stud is in its wire securing position.

26. An electrical connector in accordance with Claim 23, wherein the second stud includes a frusto-conical end portion.

27. An electrical connector in accordance with Claim 1, wherein the elongated strap defines a plurality of holes.

28. An electrical connector in accordance with Claim 27, wherein the plurality of holes are sized to receive the stud.

29. An electrical connector in accordance with Claim 28, wherein the second hole is one of the plurality of holes.